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Judy Yee
Manager, Implementation Section
California Air Resources Board (PTSD/ASEIPB)
P.O. Box 2815
Sacramento, California 95812

Subject: Volatile Organic Compound exemption packet for HFO-1234ze

Dear Judy,

Honeywell Specialty Materials is requesting the California Air Resources Board (CARB) take action to exempt the gas trans 1,3,33-tetrafluoropropene [cas 29118-24-9], also known as HFO-1234ze as a precursor to tropospheric ozone. This action would include revision of CARB's definition of volatile organic compounds (VOC) for the purpose of preparing a State Implementation Plan to attain air quality standards for ozone. This revision would add HFO-1234ze to the list of compounds excluded from the definition of VOC on the basis that the HFO-1234ze has a negligible contribution to tropospheric ozone formation.

HFO-1234ze has an average ratio of mass-based incremental reactivities relative to ethane of 0.39 & 0.07 and a MIR rate of 0.34. Thus the ozone impact on a mass basis is less than ethane.

HFO -1234ze has multiple potential applications use such as in lubricants, electronic cleaners, precision cleaners, dusters and freeze sprays. The expected primary use of this compound will be as a replacement to HFC-134a in aerosols used mainly in the industrial setting. HFO-1234ze has a Global Warming potential of 6 (vs CO_2;100 year ITH), which is significantly lower than the GWP values of HFC-134a which has a GWP of 1300 on the same 100 year ITH scale.

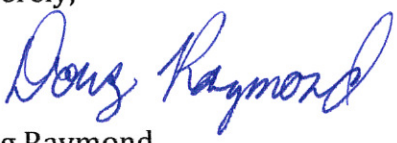
HFO-1234ze has undergone an extensive amount of toxicological testing. On the basis of this testing Honeywell has determined that HFO-1234ze exhibits very low order of toxicity and have assigned it a Honeywell Occupational Exposure Limit (OEL) of 1000 PPM (8-hr TWA).

Honeywell requests that CARB exempts this compound as a VOC compound. We believe that the low reactivity value, low GWP, favorable toxicity and environmental fate profile of HFO-1234ze will allow potential users to comply not only with state and federal VOC restrictions but will also comply with current and anticipated global warming-based regulations.

8-8-12

Thank you for your consideration to this issue. Any questions or comments regarding this request please feel free to contact me.

Sincerely,



Doug Raymond

CC: Carla Takemoto, California Air Resources Board
OEHHA
Gary Knopeck, Honeywell Specialty Materials